

COVALENT AND NON-COVALENT CROSSLINKING OF HYDROPHILIC POLYMERS
AND ADHESIVE COMPOSITIONS PREPARED THEREWITH

ABSTRACT OF THE DISCLOSURE

A water-insoluble, hydrophilic adhesive polymer is provided, wherein the polymer is prepared by polymerization of a composition consisting of a hydrophilic monomer and a dual-function monomer that both (a) undergoes polymerization with the hydrophilic monomer and (b) provides crosslinks in the polymer product. Water-insoluble, hydrophilic adhesive polymer blends are also provided, which are free of covalent crosslinks. The polymers are useful in hydrogel and bioadhesive compositions, which find utility as drug delivery systems (e.g., topical, transdermal, transmucosal, iontophoretic), medical skin coverings, wound dressings and wound healing products, biomedical electrodes, and tooth whitening stripes.